Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:

Puget Sound Chinook Salmon Critical Habitat GIS Data

1.2. Summary description of the data:

These GIS data contain stream reaches that were designated as "critical habitat" for the Puget Sound (PS) Chinook salmon Evolutionarily Significant Unit (ESU). The critical habitat is defined in the National Marine Fisheries Service's (NOAA Fisheries) final rule to designate critical habitat for 12 ESUs of Pacific salmon and steelhead.

Nearshore marine areas within the Puget Sound have been designated as Critical Habitat for the Puget Sound (PS) Chinook salmon Evolutionarily Significant Unit (ESU). We created a GIS layer of 19 nearshore units in Puget Sound based largely on water resource inventory areas (WRIA) defined by the state of Washington. These nearshore units are the areas contiguous with the shoreline out to a depth no greater than 30 meters relative to the shoreline. A depth of 30 meters generally coincides with the maximum depth of the photic zone in Puget Sound and provides essential habitat important for juvenile salmonids and their prey. Puget Sound marine areas include South Sound, Hood Canal, and North Sound to the international boundary at the outer extent of the Strait of Georgia, Haro Strait, and the Strait of Juan De Fuca to a straight line extending north from the west end of the Elwha River delta, inclusive.

A detailed description of the designation process can be found in the following document: Final Assessment of NOAA Fisheries' Critical Habitat Analytical Review Teams For 12 Evolutionarily Significant Units of Pacific Salmon and Steelhead, NOAA Fisheries Protected Resources Division, 2005.

1.3. Is this a one-time data collection, or an ongoing series of measurements?

Ongoing series of measurements

1.4. Actual or planned temporal coverage of the data:

2005 to Present

1.5. Actual or planned geographic coverage of the data:

W: -123.831, E: -121.061, N: 49.028, S: 46.759

1.6. Type(s) of data:
(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
Map (digital)

1.7. Data collection method(s):
(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)
Instrument: Not Applicable
Platform: Not Applicable
Physical Collection / Fishing Gear: Not Applicable

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:
Charleen A Gavette

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:
charleen.gavette@noaa.gov

2.5. Phone number:
707-575-6017

3. Responsible Party for Data Management
Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:
Charleen A Gavette

3.2. Title:
Data Steward

4. Resources
Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

Unknown

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Lineage Statement:
The linework for this layer is based on the Washington Department of Fish and Wildlife 1:24,000 (24K) and 1:100,000 (100K) Statewide Salmonid Fish Distribution and Oregon Salmon and Steelhead Habitat Distribution at 1:24,000 Scale.

Process Steps:

- Riverine: Fish distribution data was obtained from WDFW. Preparation of the WDFW data involved analysis and overlay of event data. Event data were exported to Microsoft Access where macros were used to convert the multiple overlapping usetypes into a single continuous fish distribution layer. The PS Chinook salmon ESU is made up of three run-types: spring, summer, and fall. The run-types were merged into a single ESU data set. The ESU data were intersected with the REO watersheds (HUC5s). The result was a network of fish distribution that could be grouped by HUC5s. The PS Chinook salmon fish distribution was segmented based on LLID and Fifth Field Watershed (HUC5) boundaries. Unique codes (see HUC5_LLID under attribute definitions) were assigned to each segment allowing for analysis of the data at the watershed scale. This unique identifier can be used to link the Critical Habitat data set to the Habitat Areas data set. The watershed data sets did not match up cleanly with the fish distribution data sets. There were numerous instances where the watershed did not cross the stream network at the correct location. These were often small segments that introduced unnecessary complexity to the data set. We searched for these segments and changed the corresponding HUC5 attribute to match the correct watershed. Data were converted to arc coverage then projected, built and cleaned The attribute tables were built and attribute accuracy was verified. In the final stages of the rule making process for critical habitat, we received comments and new information about the distribution of the ESU. During the final review of public comments and new information we revised the distribution of the ESU and made changes to the areas that were excluded from critical habitat. For a more detailed review of the changes between the proposed and final rule please refer to the final determination for critical habitat, and supporting documents.
- Estuarine: Reclassify Puget Sound DEM. Original elevation measurements were in decimeters. We reclassified the elevation measurements to meters. Clip the WA

State Saltwater Areas shapefile to the extent of the Puget Sound as described in the abstract above. Clip the Puget Sound DEM to the boundary of the Puget Sound. Derive the marine portion of the nearshore zone from the DEM. Query the clipped Puget Sound DEM for all values less than or equal to 0 meters and greater than or equal to -30 meters. Convert the results of the query into polygons. Edge match the polygons with the Puget Sound shoreline. Using the NOAA Electronic Navigational Charts (ENCs) to fill in the gap in the DEM. There is a gap of no data in the Puget Sound DEM that lies between the San Juan Islands and Bellingham Bay. We used the NOAA ENCs to estimate the area encompassed by the 30 meter bathymetry line. Identify units within the Puget Sound. We used watersheds (HUC5s) as our units in the freshwater habitat analysis, and decided that for the nearshore area analysis we would define our units based on groupings of HUC5s. We used WRIA and HUC5 boundaries to identify 19 units within the Puget Sound. Where the WRIAs meet the shoreline of the Puget Sound, we edge matched the WRIA boundaries to the HUC5 boundaries. Divide the nearshore zone into 19 units. Overlay the nearshore zone with the 19 units to create the final data set.

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 4.1. Have resources for management of these data been identified?
- 5.2. Quality control procedures employed
- 7.3. Data access methods or services offered
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:
https://www.fisheries.noaa.gov/inport/item/56137

6.4. Process for producing and maintaining metadata
(describe or provide URL of description):
Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access
NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?
Yes

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:
West Coast Regional Office (WCRO)

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:
https://archive.fisheries.noaa.gov/wcr/maps_data/endangered_species_act_critical_habitat.html
https://archive.fisheries.noaa.gov/wcr/publications/gis_maps/maps/salmon_steelhead/critical_habitat

7.3. Data access methods or services offered:

7.4. Approximate delay between data collection and dissemination:

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:
(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):
West Coast Regional Office - Portland, OR

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?
Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.